

03050104-030**(Wateree River)****General Description**

Watershed 03050104-030 is located in Kershaw, Sumter and Richland Counties and consists primarily of the **Wateree River** and its tributaries from the Wateree dam to its confluence with the Congaree River. The watershed occupies 224,118 acres of the Sandhills and Upper Coastal Plain regions of South Carolina. The predominant soil types consist of an association of the Lakeland-Chastain-Tawcaw-Vaucluse series. The erodibility of the soil (K) averages 0.22 and the slope of the terrain averages 5%, with a range of 0-25%. Land use/land cover in the watershed includes: 56.5% forested land, 19.4% forested wetland (swamp), 13.0% agricultural land, 4.7% scrub/shrub land, 3.6% urban land, 2.4% water, 0.3% nonforested wetland (marsh), and 0.1% barren land.

Downstream from the Wateree Dam, the Wateree River accepts drainage from Grannies Quarter Creek watershed, Sawneys Creek watershed, Rocky Branch, and Sanders Creek (Gum Swamp Creek). There are several ponds and lakes along the Sanders Creek drainage that include Vaughs Mill Pond, Colonial Lake, and Lake Shamokin. Camp Creek enters the river downstream near the City of Camden, as does the Twentyfive Mile Creek watershed, Gillies Creek (Buck Creek), Big Pine Tree Creek watershed, Town Creek, and Gillies Ditch (Jumping Gully). Further downstream, the Swift Creek watershed enters the river followed by Rafting Creek (Ellerbee Mill Pond, Bracey Mill Creek, Little Rafting Creek, Dinkins Mill Pond), the Spears Creek watershed, Pigeon Roost Branch, Gum Swamp Branch (Robert Branch), and the Colonels Creek watershed. Gum Swamp Branch flows through several oxbow lakes that include Ruggs Lake, Big Lake, Little Lake, and Dry Swamp Lake. The Wateree River flows past the Town of Eastover and just prior to its confluence with the Congaree River, it accepts drainage from Little River (Beech Creek, Halfway Creek, Campbell Creek, Shanks Creek, Sandy Creek, Fullers Earth Creek). Kohlers Old River connects Halfway Creek to the river. Additional natural resources include the Manchester State Forest and Poinsett State Park located in the lower portion of the watershed. Poinsett State Park Lake is located on Shanks Creek. There are a total of 493.5 stream miles and 741.8 acres of lake waters in this watershed, all classified FW.

Surface Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
CW-019	S/W	FW	WATEREE RIVER AT US 1
RS-01046	RS01	FW	RAFTING CREEK AT COUNTY ROAD 263, 1 MI E OF REMBERT
CW-206	P/SPRP	FW	WATEREE RIVER AT US 76 & 378
CW-222/SC-002	P/INT	FW	WATEREE RIVER 1.6 MI UPSTREAM OF CONFL. WITH CONGAREE RIVER

Wateree River - There are three SCDHEC monitoring sites and one South Carolina Public Service Authority (SCPSA) monitoring site along the Wateree River. Aquatic life uses are partially supported at the upstream site (**CW-019**) due to dissolved oxygen excursions; however, a significant increasing trend in dissolved oxygen concentration suggests improving conditions for this parameter. Significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for

these parameters as well. Recreational uses are fully supported at this site. Aquatic life uses are fully supported at the midstream site (*CW-206*), and a significant increasing trend in dissolved oxygen concentration and significant decreasing trends in five-day biochemical oxygen demand, turbidity, and total nitrogen concentration suggest improving conditions for these parameters. Recreational uses are fully supported at this site.

At the downstream site (*CW-222, SC-002*), aquatic life uses are fully supported and significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters. There is a significant increasing trend in pH. Recreational uses are fully supported at this site and a significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter.

Rafting Creek (RS-01046) – Aquatic life and recreational uses are fully supported. This is a blackwater system, characterized by naturally low pH conditions. Although pH excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations.

A fish consumption advisory has been issued by the Department for mercury and includes the Wateree River within this watershed (see advisory p.39).

Natural Swimming Areas

<i>FACILITY NAME</i>	<i>PERMIT #</i>
<i>RECEIVING STREAM</i>	<i>STATUS</i>
POINSETT STATE PARK	43-N01
POINSETT STATE PARK LAKE	ACTIVE

Groundwater Quality

<u>Well #</u>	<u>Class</u>	<u>Aquifer</u>	<u>Location</u>
AMB-018	GB	BLACK CREEK	OAKLAND PLANTATION
AMB-038	GB	MIDDENDORF	C. THOMPSON WATER DISTRICT

NPDES Program

Active NPDES Facilities

<i>RECEIVING STREAM</i>	<i>NPDES#</i>
<i>FACILITY NAME</i>	<i>TYPE</i>
<i>PERMITTED FLOW @ PIPE (MGD)</i>	<i>COMMENT</i>
WATEREE RIVER	SC0002038
SCE&G/WATEREE STATION	MAJOR INDUSTRIAL
PIPE #: 001 FLOW: 490	
PIPE #: 002,003A,003B FLOW: M/R	
WATEREE RIVER	SC0002585
INVISTA SARL/CAMDEN	MAJOR INDUSTRIAL
PIPE #: 001 FLOW: 4.200	(EI DUPONT)
PIPE #: 002 FLOW: 0.012	

WATEREE RIVER CLARIANT LSM (AMERICA), INC. PIPE #: 001 FLOW: 0.800	SC0002682 MAJOR INDUSTRIAL (ARCHIMICA/NIPA /HARDWICK)
WATEREE RIVER CITY OF CAMDEN WWTP PIPE #: 001 FLOW: 2.4 PIPE #: 001 FLOW: 3.0 (PROPOSED)	SC0021032 MAJOR DOMESTIC
WATEREE RIVER INTERNATIONAL PAPER/EASTOVER (UNION CAMP) PIPE #: 001,01A FLOW: M/R	SC0038121 MAJOR INDUSTRIAL
WATEREE RIVER KERSHAW COUNTY/LUGOFF WWTP PIPE #: 001 FLOW: 0.72	SC0039870 MINOR DOMESTIC
WATEREE RIVER KAWASHIMA TEXTILE USA, INC. PIPE #: 001 FLOW: M/R PIPE #: 002 FLOW: 1.075	SC0023264 MAJOR INDUSTRIAL (WATEREE TEXTILE CORP.)
WATEREE RIVER FINNCHEM USA, INC. PIPE #: 001,002 FLOW: 0.22	SC0047902 MINOR INDUSTRIAL (HURON TECH CORP.)
WATEREE RIVER RICHLAND COUNTY/EASTOVER REG. WWTP PIPE #: 001 FLOW: 0.25 TIER I (CURRENT) PIPE #: 001 FLOW: 0.50 TIER II PIPE #: 001 FLOW: 0.75 TIER III	SC0047911 MINOR DOMESTIC
WATEREE RIVER PALMETTO UTILITIES INC. REG. WWTP PIPE #: 001 FLOW: 6.000 UNCONSTRUCTED	SC0043451 MINOR DOMESTIC
WATEREE RIVER CITY OF SUMTER PIPE #: 001 FLOW: 9.000 (PROPOSED)	SC0027707 MAJOR DOMESTIC
WATEREE RIVER SC DEPT. CORR./WATEREE RIVER PLT PIPE #: 001 FLOW: 0.250	SC0045349 MINOR DOMESTIC
GILLIES CREEK UNIMIN CORP./LUGOFF PLT PIPE #: 001,01A,002,02A,003 FLOW: M/R	SCG730382 MINOR INDUSTRIAL WAS SC0002909
GILLIES CREEK COGSDILL TOOL PRODUCTS PIPE #: 001 FLOW: M/R	SC0037575 MINOR INDUSTRIAL
GILLIES CREEK EASTERN LAND & TIMBER/IND. PK. MN. PIPE #: 001 FLOW: M/R	SCG730188 MINOR INDUSTRIAL
GUM SWAMP BRANCH	SC0039292

BECKER HANSON AGGREGATES SE/HASSKAMP MINE PIPE #: 001,002 FLOW: M/R	MINOR INDUSTRIAL
LITTLE RAFTING CREEK SCENIC LAKE PARK PIPE #: 001 FLOW: 0.010	SC0031895 MINOR DOMESTIC
BEECH CREEK US AIR FORCE/SHAW AFB PIPE #: 01A,01B FLOW: M/R PIPE #: 001 FLOW: 1.20	SC0024970 MINOR INDUSTRIAL
BEECH CREEK TRIBUTARY CWS/OAKLAND PLANTATION SD PIPE #: 001 FLOW: 0.160	SC0030678 MINOR DOMESTIC
BEECH CREEK TRIBUTARY SOUTH FORGE APTS PIPE #: 001 FLOW: 0.0182	SC0033235 MINOR DOMESTIC
SANDERS CREEK TRIBUTARY NEW SOUTH/CAMDEN PIPE #:001 FLOW: M/R	SC0047384 MINOR INDUSTRIAL

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

<i>LANDFILL NAME FACILITY TYPE</i>	<i>PERMIT # STATUS</i>
INTERNATIONAL PAPER/EASTOVER INDUSTRIAL	IWP-187 ACTIVE
HAGOOD HERATIO DUMP -----	----- CLOSED
PLOWDEN C&D DUMP C&D	----- CLOSED

Land Application Sites

<i>LAND APPLICATION FACILITY NAME</i>	<i>PERMIT # TYPE</i>
SPRAYFIELD ROLLING MEADOWS/HERMITAGE FINAN	ND0069868 DOMESTIC
SPRAYFIELD SMITHS MHP	ND0061735 DOMESTIC
RAPID INFILTRATION BASIN PRAXAIR, INC./LINDE DIV.	ND0069655 INDUSTRIAL

Mining Activities

<i>MINING COMPANY</i>	<i>PERMIT #</i>
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<i>MINE NAME</i>	<i>MINERAL</i>
LUGOFF SAND COMPANY LUGOFF SAND MINE	0121-55 SAND
HANSEN AGGREGATES HARRY HASSKAMP MINE	0582-85 SAND/GRAVEL
CANTEY CONSTRUCTION, INC. BUTTERNUT MINE	1546-55 SAND

Water Quantity

<i>WATER USER STREAM</i>	<i>REGULATED CAPACITY (MGD) PUMPING CAPACITY (MGD)</i>
EI DUPONT DENEMOURS	6.0
WATEREE RIVER	9.0

Growth Potential

There is a high potential for growth in this watershed, which contains portions of the City of Camden and the Town of Lugoff and is adjacent to Shaw Air Force Base. There is a high potential for development around these areas. A large portion of the watershed are river bottomland swamp forests, which are heavily forested for timber. The City of Camden is proposing to upgrade the WWTP to 3.0 MGD to serve the growth in the area. The Town of Stateburg and portions of the Towns of Wedgewood and Rembert are also contained in this watershed.

Watershed Protection and Restoration

Special Projects

Water Quality Model of the Upper Wateree River

The Kershaw County Water and Sewer Authority contracted with the U.S. Geological Survey to conduct an extensive modeling study of the upper Wateree River, which was completed in 1999. The study included the characterization of streamflow and water quality in the river and the development of hydrodynamic and water quality computer simulation models. Together, the models are designed to predict water quality, especially dissolved oxygen levels, under various streamflow and loading conditions. It has been determined that a formal TMDL will not be required for this section of the Wateree River, since the impairment in this portion of the river is due, at least in part, to the discharge of low dissolved oxygen water from Lake Wateree. This situation is being addressed by the Department via means other than the NPDES and TMDL programs. The models are currently being used; however, to develop wasteload allocations that will be included in NPDES permits issued for discharges to the river.